

What Is Claimed Is:

1. An image projection and display device comprising:
  - a plurality of projectors;
  - a projection screen forming a focusing plane for projected images from the plurality of projectors, mutually overlapping regions existing between said images;
  - a test image storing section for storing prescribed test images;
  - an image capturing section for acquiring projected test images in which a prescribed test image is projected onto said projection screen respectively by each of said projectors;
  - a correction data calculating section for calculating correction data for correcting the input images for the respective projectors, on the basis of the acquired test images, in such a manner that a target brightness is achieved across the whole projection area including the overlapping regions;
  - a correction data storing section for storing the correction data thus calculated; and
  - an image correcting section for correcting the images input to the respective projectors, by using said correction data.
2. The image projection and display device according to claim 1, wherein said correction data calculating section calculates correction data for correcting the input images to

the respective projectors, in such a manner that a uniform brightness is achieved across the whole projection area including the overlapping regions.

3. The image projection and display device according to claim 1, wherein said correction data calculating section calculates correction data for correcting input images for said projectors, in such a manner that a continuous brightness is achieved across the whole projection area including the overlapping regions.

4. The image projection and display device according to claim 1, wherein said correction data storing section stores initial correction data as first correction data, said correction data calculating section calculates second correction data, from the image of the prescribed test image projected after correction using the first correction data, as captured by said image capturing section, judges whether or not it is necessary to update the first correction data, according to the second correction data, and, if it judges that updating is necessary, stores the calculation result between said second correction data and said first correction data in said correction data storing section as new first correction data.

5. The image projection and display device according to claim 4, wherein said correction data calculating section repeats the task of updating the first correction data, until

it is judged from the second correction data that it is not necessary to create new first correction data.

6. The image projection and display device according to claim 1, further comprising light shielding sections disposed in the light paths of said plurality of projectors, so as to reduce the quantity of light in said overlapping regions on said projection screen.

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